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<div>7590 Robert E. Bushnell Suite 300 1522 K Street, N.W. Washington, DC 20005-1202</div>				
			EXAMINER DANIEL JR, WILLIE J	
			ART UNIT 2617	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/801,807

Applicant(s)

KIL, TAE-YOUNG

Examiner

Willie J. Daniel, Jr.

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to applicant's communication filed on 18 June 2007. **Claims 25-31** are now pending in the present application and **claims 1-24** are canceled. This office action is made **Final**.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 25, 28, and 30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding **claim 25**, applicant claims, "transmitting no cell secession alarm information to the corresponding mobile station upon a determination that the mobile station is not registered in the private radio mobile communication system."

Regarding **claim 28**, applicant claims, "transmitting no cell secession alarm information to the corresponding mobile station upon a determination that the mobile station is not registered in the private radio mobile communication system."

Regarding **claim 30**, applicant claims, “the transmitter adapted to transmit no cell secession alarm information to the corresponding mobile station upon a determination that the mobile station is not registered in the private radio mobile communication system.”

Regarding **claims 25, 28, and 30**, each claim includes a limitation that is not supported by the specification as originally filed and/or subsequent amendments (see pg. 10, lines 6-9; pg. 11, line 16 - pg. 12, line 11; pg. 15, line 15 - pg. 16, line 14; pg. 17, lines 8-10; Fig. 2). The Examiner respectfully requests the applicant to provide page(s), line(s), and figure(s) of the amended instant application that supports to limitation of the claims to help clarify and resolve this issue.

In response to applicant’s argument of claims 25, 28, 30 on pg. 3, 2nd paragraph, “...it is submitted that claims 25-28 and 30 meet all statutory requirements...”, the Examiner respectfully disagrees. Applicant admits on pg. 2, 4th paragraph, “...the **call** is an extension call between the registered subscribers...**call** is not an extension call between the registered subscribers...” to support the claim limitation. There is **no mention** of a **call** in the current claim language. In addition, the applicant on pg. 2, 4th paragraph of remarks section states, “...the paragraph bridging pages 15 and 16...” as support for the claimed limitation. At best, the specification describes two conditions which are the following:

- a. Condition 1 - mobile stations are registered to be able to use the private mobile communication service **AND** whether an extension **call** is performed between **subscribers**, such as between **registered mobile stations**. When the **call** is an

extension call between the registered subscribers, the cell secession alarm operation and process...is performed. See instant application pg. 16, lines 1-4,7-9.

- b. Condition 2 - "...when the call is not an **extension call** between the registered subscribers, a handoff occurs to a neighbor BTS...". See instant application pg. 16, lines 4-6.

As required by the instant application, there must be an ongoing **call** to satisfy either condition 1 or condition 2. Consequently, the current claim language does not provide any indication that an ongoing **call** is communicated between mobile stations. Applicant is advised to clearly and concisely provide claim language that is consistent and correlates to the specification and mindful not to improperly utilized language that is clearly not supported.

Therefore, in view of above, the 112 rejection of the claims are hereby maintained.

The Examiner respectfully requests the applicant to provide any further page(s), line(s), and figure(s) of the instant application that supports the limitation of the claim(s) and/or any supportive comment(s) to help clarify and resolve this issue(s).

3. Due to the 112 rejection of the current claim language, the Examiner has given a reasonable interpretation of said language and the claims are rejected as broadest and best interpreted. In addition, applicant is welcomed to point out where in the specification the Examiner can find support for this language if Applicant believes otherwise.
4. This list of examples is not intended to be exhaustive. The Examiner respectfully requests the applicant to review the all claim(s) that have similar limitations and/or issues as the claims cited above.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Buttitta et al.** (hereinafter Buttitta) (**US 5,913,166**) in view of **Bartle et al.** (hereinafter Bartle) (**US 6,018,655**).

Regarding **claim 25**, Buttitta discloses a method of generating an alarm on an occurrence of a cell secession of a mobile station (10) located within a common cell area of a public and private radio mobile communication system (see col. 7, lines 15-18; Fig. 1), where the private base station provides private and public communication, the method comprising:

receiving power-related information transmitted from the mobile station (10) and detecting information about the quality from the received information (see col. 7, lines 15-18,42-44);

comparing the quality information with a power control parameter value of the system (see col. 7, lines 15-18,42-44);

determining whether the mobile station (10) is registered in the private wireless communication service system upon a determination that a power level of the mobile station (10) is less than a predetermined reference power level (see col. 7, lines 12-23,42-44);

transmitting information for generating an alarm on an occurrence of a cell secession to the corresponding mobile station (10) upon a determination that the mobile station (10) is

registered in the private radio mobile communication system (see col. 7, lines 12-23,42-44);
and

transmitting no cell secession alarm information to the corresponding mobile station (10) upon a determination that the mobile station (10) is not registered in the private radio mobile communication system (see col. 7, lines 12-23,42-44), where the private base station (20) sends the warning tone to a registered (or connected) mobile station (10). When the mobile station (10) connects with the cellular system, the mobile station (10) is not registered (or connected) with the private base station. Therefore, the private base station does not transmit a warning tone to a mobile station not connected or registered. Buttitta does not specifically disclose having the features detecting information about the frame quality; comparing the frame quality information with a power control parameter value of the system. However, the examiner maintains that the features detecting information about the frame quality; comparing the frame quality information with a power control parameter value of the system was well known in the art, as taught by Bartle.

In the same field of endeavor, Bartle discloses the features detecting information about the frame quality (see col. 1, lines 54-67; col. 2, lines 17-23; Figs. 2-3);

comparing the frame quality information with a power control parameter value of the system (see col. 1, lines 54-67; col. 2, lines 17-23; Figs. 2-3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Buttitta and Bartle to have the features detecting information about the frame quality; comparing the frame quality information with

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a power control parameter value of the system, in order to notify a digital cellular telephone user of an imminent communication disconnection, as taught by Bartle (see col. 2, lines 6-9).

Regarding **claim 26**, the combination of Buttitta and Bartle discloses every limitation claimed, as applied above (see claim 25), in addition Buttitta further discloses the method as claimed in claim 25, wherein transmitting the cell secession alarm information to the mobile station comprises transmitting a predetermined tone control message over a forward traffic channel (see col. 4, lines 43-47; col. 7, lines 15-18).

Regarding **claim 27**, Buttitta discloses the method as claimed in claim 25, the power-related information including at least one of a power measurement report message as to the received power level from the mobile station (see col. 7, lines 12-15, 42-44). Buttitta does not specifically disclose having the feature an erasure indicator bit as to an error detected field. However, the examiner maintains that the feature an erasure indicator bit as to an error detected field was well known in the art, as taught by Bartle.

In the same field of endeavor, Bartle discloses the feature an erasure indicator bit as to an error detected field (see col. 1, lines 54-67; col. 2, lines 17-23; Figs. 2-3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Buttitta and Bartle to have the feature an erasure indicator bit as to an error detected field, in order to notify a digital cellular telephone user of an imminent communication disconnection, as taught by Bartle (see col. 2, lines 6-9).

Regarding **claim 28**, Buttitta discloses a method comprising: receiving in a base station of a public and private radio mobile communication system a power control parameter of a mobile station located within a common cell area of the public and private

radio mobile communication system from a base station controller of the mobile communication system (see col. 7, lines 15-18; Fig. 1), where the private base station provides private and public communication;

receiving power-related information in the base station, the power-related information being related to a received power level of the base station at the mobile station and being generated and transmitted from the mobile station to the base station (see col. 7, lines 15-18,42-44);

the base station detecting information as to a quality (e.g., RSSI) by determining a rate (e.g., RSSI) from the received power-related information (see col. 7, lines 15-18,42-44);

comparing the determined forward rate (e.g., RSSI) with a value corresponding to the power control parameter received from the corresponding base station controller to provide a determined power level of the mobile station (see col. 7, lines 15-18,42-44);

determining when the determined power level of the mobile station decreases below a predetermined reference power level indicating that the mobile station has seceded from a selected cell of the mobile communication system (see col. 7, lines 12-23,42-44);

determining whether the mobile station is registered in the private radio mobile communication system when the determined power level of the mobile station is less than the predetermined reference power level (see col. 7, lines 12-23,42-44);

transmitting information for generating an alarm on an occurrence of a cell secession to the corresponding mobile station upon a determination that the mobile station is registered in the private radio mobile communication system (see col. 7, lines 12-23,42-44); and

transmitting no cell secession alarm information to the corresponding mobile station upon a determination that the mobile station is not registered in the private radio mobile communication system (see col. 7, lines 12-23,42-44), where the private base station (20) sends the warning tone to a registered (or connected) mobile station (10). When the mobile station (10) connects with the cellular system, the mobile station (10) is not registered (or connected) with the private base station. Therefore, the private base station does not transmit a warning tone to a mobile station not connected or registered. Buttitta does not specifically disclose having the features detecting information as to a frame quality by determining a forward frame error rate; comparing the determined forward frame error rate with a value corresponding to the power control parameter. However, the examiner maintains that the features detecting information as to a frame quality by determining a forward frame error rate; comparing the determined forward frame error rate with a value corresponding to the power control parameter was well known in the art, as taught by Bartle.

Bartle further discloses the features detecting information as to a frame quality by determining a forward frame error rate (see col. 1, lines 54-67; col. 2, lines 17-23; Figs. 2-3); comparing the determined forward frame error rate with a value corresponding to the power control parameter (see col. 1, lines 54-67; col. 2, lines 17-23; Figs. 2-3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Buttitta and Bartle to have the features detecting information as to a frame quality by determining a forward frame error rate; comparing the determined forward frame error rate with a value corresponding to the power

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control parameter, in order to notify a digital cellular telephone user of an imminent communication disconnection, as taught by Bartle (see col. 2, lines 6-9).

Regarding **claim 29**, Buttitta discloses the method as claimed in claim 28, the power-related information including at least one of a power measurement report message as to the received power level from the mobile station and an erasure indicator bit as to an error detected field (see col. 7, lines 12-15, 42-44). Buttitta does not specifically disclose having the feature an erasure indicator bit as to an error detected field. However, the examiner maintains that the feature an erasure indicator bit as to an error detected field was well known in the art, as taught by Bartle.

Bartle further discloses the feature an erasure indicator bit as to an error detected field (see col. 1, lines 54-67; col. 2, lines 17-23; Figs. 2-3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Buttitta and Bartle to have the feature an erasure indicator bit as to an error detected field, in order to notify a digital cellular telephone user of an imminent communication disconnection, as taught by Bartle (see col. 2, lines 6-9).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 30-31 are rejected under 35 U.S.C. 102(b) as being anticipated by **Buttitta et al.** (hereinafter Buttitta) (US 5,913,166).

Regarding **claim 30**, Buttitta discloses a method and an apparatus comprising:

a base station of the mobile communication system adapted to receive power-related information transmitted from a mobile station located within a common cell area of a public and private radio mobile communication system, the power-related information being related to a received power level of the base station at the mobile station and being generated and transmitted from the mobile station to the base station (see col. 7, lines 15-18,42-44; Fig. 1);

an analyzer adapted to analyze the received power-related information to determine when a power level of the mobile station decreases below a predetermined reference power level indicating that the mobile station has seceded from a selected cell of the mobile to communication system (see col. 7, lines 15-18,42-44);

the analyzer also adapted to determine whether the mobile station is registered in the private radio mobile communication system upon a determination that a power level of the mobile station is less than a predetermined reference power level (see col. 7, lines 15-18,42-44);

a transmitter adapted to transmit cell secession alarm information for generating an is alarm on an occurrence of a cell secession to the corresponding mobile station upon a determination that the mobile station is registered in the private radio mobile communication system (see col. 7, lines 12-23,42-44); and

the transmitter adapted to transmit no cell secession alarm information to the corresponding mobile station upon a determination that the mobile station is not registered in the private radio mobile communication system (see col. 7, lines 12-23,42-44), where the private base station (20) sends the warning tone to a registered (or connected) mobile station (10). When the mobile station (10) connects with the cellular system, the mobile station (10) is not registered (or connected) with the private base station. Therefore, the private base station does not transmit a warning tone to a mobile station not connected or registered.

Regarding **claim 31**, Buttitta discloses the apparatus as claimed in claim 30, wherein the transmitter is adapted to transmit a predetermined tone control message over a forward traffic channel of the mobile communication system indicating that the mobile station has seceded from the selected cell of the mobile communication system (see col. 4, lines 43-47; col. 7, lines 15-18).

Response to Arguments

7. Applicant's arguments filed 18 June 2007 have been fully considered but they are not persuasive.

The Examiner respectfully disagrees with applicant's arguments as the applied reference(s) provide more than adequate support and to further clarify (see the above claims and comments in this section).

8. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Regarding applicant's argument of claim 25 on pg. 3, 5th paragraph, "...it is inherent that the mobile station must be connected...", the Examiner respectfully disagrees. However, does applicant's statement also mean that the claimed features are inherent? Claim 25 recites "...determining whether the mobile station is registered in the private wireless communication service system..." in line(s) 8-9. The claim clearly indicates that the mobile station **may or may not** be registered. Claim 25 further recites "...the mobile station is **not registered** in the private radio mobile communication system..." in line(s) 15-16 of the claim. Apparently, applicant has failed to appreciate the combination of well-known prior art Buttitta and Bartle that clearly discloses the claimed feature(s) as would be clearly recognized by one of ordinary skill in the art. In particular, Buttitta discloses the features transmitting no cell secession alarm information to the corresponding mobile station (10) upon a determination that the mobile station (10) is not registered in the private radio mobile

communication system (see col. 7, lines 12-23,42-44), where the private base station (20) sends the warning tone to a registered (or connected) mobile station (10). When the mobile station (10) connects with the cellular system, the mobile station (10) is not registered (or connected) with the private base station. Therefore, the private base station does not transmit a warning tone to a mobile station not connected or registered. As further support in the same field of endeavor, Bartle discloses the feature(s) detecting information about the frame quality (see col. 1, lines 54-67; col. 2, lines 17-23; Figs. 2-3); comparing the frame quality information with a power control parameter value of the system (see col. 1, lines 54-67; col. 2, lines 17-23; Figs. 2-3). Therefore, the combination of Buttitta and Bartle more than adequately meets the claim limitations.

9. Regarding applicant's comment of claims 30-31 on pg. 4, 4th paragraph, "...rejected under 35 U.S.C. § 102(b)...", the Examiner reiterates that claims 30-31 are rejected under 35 U.S.C. 102(b) and the limitations are clearly anticipated by Buttitta.
10. Regarding applicant's argument(s) of claims 26-31, the claims are addressed for the same reasons as set forth above and as applied above in each claim rejection.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until

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after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Willie J. Daniel, Jr. whose telephone number is (571) 272-7907. The examiner can normally be reached on 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/WJD,JR/

WJD,JR
06 August 2007



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SUPERVISORY PATENT EXAMINER